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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,662	02/17/2000	Motoya Iwasaki	Q57879	7451

7590 04/10/2003

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EXAMINER

TRAN, THIEN D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/505,662

Applicant(s)

IWASAKI, MOTOYA

Examiner

Thien D Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement filed 02/17/2000 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being participated by Kobayakawa et al (U.S Patent No. 6,064,338).

Regarding claims 1, 2 Kobayakawa discloses a receiver comprising:  
despreading code calculating means for calculating a code for  
despreading a reception signal based on delays given to the reception signal  
over a plurality of transmission paths through which the reception signal is

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transmitted and calculated weights (coefficients) representing respective phase/amplitude ratios of the transmission paths (figure 4, col.10 lines 1-15);

despreading means for despreading the reception signal using the code calculated by said despreading code calculating means; and

integrating means for integrating the reception signal despread by said despreading means. See col.6 lines 20-60.

Regarding claim 3, Kobayakawa discloses that despreading code calculating means comprises:

a plurality of delay means for adding the delays over the transmission paths to a complex conjugate value of a spreading code used when the reception signal is transmitted, and outputting delayed signals;

a plurality of multiplying means for multiplying the delayed signals outputted from said delay means by complex conjugate values of the coefficients representing the respective phase/amplitude ratios of the transmission paths, and outputting product signals; and

adding means for adding the product signals outputted from said multiplying means, and outputting the sum as the code for despreading the reception signal. See col.8 line 30 to col.9 line 10.

Regarding claim 4, Kobayakawa discloses memory means for storing the code outputted from said despreading code calculating means, said despreading means comprising means for despreading said reception signal using the code stored by said memory means. See col.6 lines 20-35.

Regarding claim 5, Kobayakawa discloses memory means for storing the code outputted from said adding means, said despreading means comprising means for despreading said reception signal using the code stored by said memory means. See col.10 lines 20-40.

Regarding claims 6, 7, Kobayakawa discloses that there are as many said delay means and said multiplying means as the number of the transmission paths. See col.11 lines 1-10.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Kuo (US Patent No. 6,507,604 B1) discloses Rake receiver for CDMA wireless communications.

-Divsalar et al (US Patent No. 5,644,592) discloses parallel interference cancellation for CDMA application.

-Dent (US Patent No. 5,305,349) discloses quantized coherent Rake receiver.

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (703) 308-4388. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Thien Tran

**ALPUS H. HSU**  
**PRIMARY EXAMINER**